

Title (en)

Nanoparticles for the preparation of polyurethane foams

Title (de)

Nanopartikel für die Herstellung von Polyurethanschaum

Title (fr)

Nanoparticules destinées à la préparation de mousses de polyuréthane

Publication

EP 1683831 A1 20060726 (DE)

Application

EP 06000457 A 20060111

Priority

DE 102005003299 A 20050124

Abstract (en)

Nuclearization agent (A), for producing polyurethane-foam material, comprises (wt.%) nanoparticles (0.5-60) with an average diameter of 1-400 nm, dispersing agents (0.5-99.5) and solvents (0-99). Independent claims are also included for: (1) a polyurethane foam material, having a cell number of at least 10 cm⁻³, comprising 0.01-5 wt.% of the nanoparticle with a diameter of 1-40 nm; (2) a method for cell structuring of the polyurethane foam material comprising adding diisocyanates and 0.01-5 wt.% of the nuclearization agent, where the cell structuring process is steered by the quantity of the nuclearization agent, dispersing agent and the diameter of the nano-particles in the nuclearization agent; (3) a method for preparing the polyurethane foam material comprising mixing 100 wt. parts of polyol, 0.2-6 wt. parts of chemical propellant, 0.1-5 wt. parts of stabilizers and 0.01-5 wt. parts of nuclearization agents, adding 30-70 wt. parts of diisocyanate and mixing the resulting composition; and (4) a system, for carrying out the procedure, comprising as separate, individual components of: at least one nuclearization agent, diisocyanate and a polyol with the remaining components that are required for the preparation of the polyurethane foam material.

IPC 8 full level

C08K 3/22 (2006.01); **C08J 9/00** (2006.01); **C08L 75/04** (2006.01)

CPC (source: EP US)

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